

REMARKS

Applicant has amended the specification to correct the typographical error noted by the Examiner. Applicant has also amended claims 1, 7, 12, 15, 25, and 29 to address the Examiner's 35 U.S.C. §112 rejections and noted informalities. No new matter has been added. Accordingly, Applicant respectfully requests the Examiner withdraw the objections and the §112 rejections.

The present invention is a tube-forming device for notching and/or punching a tubular work piece. The tube-forming device comprises a work piece holder to hold the tubular work piece, a tool insertable into an end of the work piece, a tool holder to hold the tool, and a dual action rotating cam assembly. The rotating cam assembly comprises first and second rotating cams disposed on a common shaft such that the cams rotate about the same axis. The rotating cams drive the tool in a first direction during a first phase of a tool cycle, and in a second direction during a second phase of a tool cycle. During a third phase of the tool cycle, the rotating cam assembly is idle.

The Examiner rejected claim 1 under 35 U.S.C. §102(b) as being anticipated by the patent to Koster. As amended, claim 1 requires "a first rotating cam to drive the tool holder in [a] first direction during a first phase of a tool cycle...and...a second rotating cam driven synchronously with the first rotating cam to drive the tool holder in a second direction during a second phase of the tool cycle." In stark contrast, the cams (40, 41) of Koster do not rotate, but rather, are offset from one another and angled (see Figure 1). Specifically, each cam in Koster includes an angled cam surface (43, 45) that engages a corresponding angled cam face (44, 46) on a punch holder (31). When the ram (42) is moved downward, the angled cam surfaces engage their corresponding angled cam faces, and cause the punch holder to move in right and left directions. Thus, the cams in Koster shift the punch holder right and left by moving up and down with the ram, not by rotating (see Koster, col. 3, ll. 1-7). Therefore, the patent to Koster fails to teach at least one element of claim 1, and as such, fails to anticipate claim 1 under

§102. Accordingly, Applicant respectfully requests the allowance of claim 1, and its dependent claims 2-14.

The Examiner also rejected claims 15 and 30 under 35 U.S.C. §102(b) for the same reasons as those cited in claim 1. Claim 15 has been amended to require "a dual action rotating cam assembly," while unamended claim 30 already requires "rotating a dual action cam assembly." For the reasons stated above with respect to claim 1, Koster fails to anticipate either of claims 15 and 30 under §102. Accordingly, Applicant respectfully requests the allowance of claims 15 and 30, as well as their respective dependent claims 16-29 and 31.

Finally, Applicant adds new claims 32-37 for consideration by the Examiner. No new matter has been added. Claim 32 also requires "a rotating cam assembly to drive the tool holder in first and second directions," and as such, is not anticipated under §102 by Koster. Accordingly, Applicant respectfully requests the allowance of claims 32-37.

Respectfully submitted,

COATS & BENNETT, P.L.L.C.

By:

Stephen A. Herrera
Registration No. 47,642

P.O. Box 5
Raleigh, NC 27602
Telephone: (919) 854-1844

CERTIFICATE OF MAILING

I HEREBY CERTIFY THAT THIS DOCUMENT IS BEING DEPOSITED WITH THE UNITED STATE POSTAL SERVICE AS FIRST CLASS MAIL ON THE DATE INDICATED BELOW, POSTAGE PREPAID, IN AN ENVELOPE ADDRESSED TO: MAIL STOP FEE AMENDMENT, COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

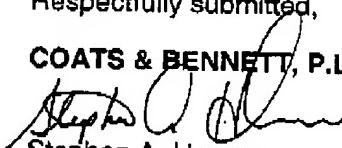
Signature: _____

Date Mailed: _____

§102. Accordingly, Applicant respectfully requests the allowance of claim 1, and its dependent claims 2-14.

The Examiner also rejected claims 15 and 30 under 35 U.S.C. §102(b) for the same reasons as those cited in claim 1. Claim 15 has been amended to require "a dual action rotating cam assembly," while unamended claim 30 already requires "rotating a dual action cam assembly." For the reasons stated above with respect to claim 1, Koster fails to anticipate either of claims 15 and 30 under §102. Accordingly, Applicant respectfully requests the allowance of claims 15 and 30, as well as their respective dependent claims 16-29 and 31.

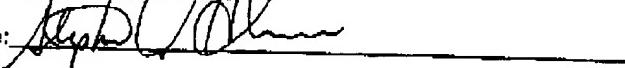
Finally, Applicant adds new claims 32-37 for consideration by the Examiner. No new matter has been added. Claim 32 also requires "a rotating cam assembly to drive the tool holder in first and second directions," and as such, is not anticipated under §102 by Koster. Accordingly, Applicant respectfully requests the allowance of claims 32-37.

Respectfully submitted,
By: 
COATS & BENNETT, P.L.L.C.
Stephen A. Herrera
Registration No. 47,642

P.O. Box 5
Raleigh, NC 27602
Telephone: (919) 854-1844

CERTIFICATE OF MAILING

I HEREBY CERTIFY THAT THIS DOCUMENT IS BEING DEPOSITED WITH THE UNITED STATE POSTAL SERVICE AS FIRST CLASS MAIL ON THE DATE INDICATED BELOW, POSTAGE PREPAID, IN AN ENVELOPE ADDRESSED TO: MAIL STOP FEE AMENDMENT, COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

Signature: 

Date Mailed: 11/20/2003